

the optic disappearance of axis cylinder and medullary sheath. The interior of the neurilemma is filled with a homogeneous, strongly refracting mass, without apparent structure.

Colasanti's description of the degenerative process refers mainly to the behavior of the lately described medullary segments. About the fourth day these segments increase in width and become less refractive, until they have the appearance of paraffine. Hereupon the segments, formerly joined like cones, fitting into corresponding depressions, begin to separate, until the nerve seems to consist of a series of elongated drops. This finishes the first stage, ending about the sixth day.

As a second stage in the degeneration process, C. describes the occurrence of folds and prominences on the surface of these drops, leading to further segmentation. After the end of ten days the contents of the nerve consist of a detritus of finely granular substance, in which minute drops of fatty lustre, free nuclei and leucocytes are suspended.

OPHTHALMIC MIGRAINE.—The ocular phenomena of migraine are sufficiently prominent to be noticed by every one, but they have usually been looked on only as complications. We find in the *Gaz. des Hopitaux*, Oct. 5, an article on ophthalmic migraine as recognized by M. Galezowski. Many observations led this author to the conviction that many apparently very serious ocular troubles were purely of a nervous nature, and that they might alone constitute a true migrainous attack. Such, for example, was an attack of amblyopia, apparently indicating serious trouble, appearing all at once, after a violent nervous commotion, in a woman subject to frequent such headaches, and which disappeared altogether in the course of a few days. In another case a young man who was subject to very frequent and severe migrainous attacks, but who passed once several months without one, during which period he had, four to six times a week, amblyopic visual disorders, lasting twenty or thirty minutes each time. Such instances as these seem to indicate that the ordinary symptoms of migraine may be at times replaced by ocular disorders, purely neurotic in their nature, but closely simulating serious structural disease. This brings up another point: if this be the case, the diagnosis of ocular troubles may be embarrassed by the fact on the one hand, and on the other, there may be already existent organic disease of the eye to complicate the diagnosis of the neurosis. M. Galezowski has canvassed a vast number of observations in his experience, and has endeavored to establish the diagnosis of these special neuroses of the eye. He concludes that there is a special form of migraine, which he calls migraine of the eye, or ophthalmic migraine.

He recognizes four varieties of this affection: periodic hemiopia, scintillant scotoma, migrainous amaurosis, and photophobia. Of seventy-six cases collected forty-one were females and thirty-five males. It appears most frequently in those who have long been liable to the ordinary form of migraine, and especially in nervous hysterical women. Sometimes the ophthalmic symptoms are preceded by a violent headache, but, more frequently, they come on all at once without premonitions, and are then often but not

always followed by pain in the head, nausea, and other usual characters of migraine. The visual disorder is characterized by dimness of vision, speedily followed either by a central scotoma, or by hemiopia. In the cases where the ordinary symptoms of migraine make their appearance, as they do frequently, they appear only after the cessation of the visual disorders. In some cases the usual form is complicated with sudden blindness, accompanied or not, with scintillations, etc.

According to M. Galezowski this ophthalmic migraine is a neurosis of one of the portions of the fifth nerve which supplies the vaso-motor filaments either to the central organs of vision, such as the tubercula quadrigemina, the geniculate bodies, and the chiasm, or to the peripheral parts, such as the optic nerves and retina. The irritation of these vaso-motor fibres, like that of the other branches of the fifth pair, will ordinarily produce pain. It may react only in the visual centres, producing hemiopia, or there may be a scintillant scotoma, with jagged lightning-like appearances, or the resemblance of a fortification-like polygon, due to irritation of the vaso-motor fibres of the retina. The photophobia and suffusion are readily explained by supposing a propagation of the irritation to the lachrymal gland and the ciliary nerves.

The treatment recommended by M. Galezowski for this form of migraine is the same as for the other forms, especially by acting on the digestive canal for a long period. By means of light saline purgatives he has been able to relieve both the head and eye symptoms. Bromide of eumorph and bromhydrate of quinine seem to have a very good influence in these ocular crises.

CEREBELLAR DISEASES.—H. Nothnagel, *Berliner klin. Wochenschr.*, No. 15, 1878 (abstr. in *Centralblatt f. d. med. Wissensch.*).

Diseases of the cerebellum often run their course latent, without regard to the kind of disorder or the size of the lesion. But this can only occur when the disease is located in one hemisphere, since the suppression of the function of a single hemisphere of the cerebellum has no constant recognizable symptoms (*Obh.*, 1876, p. 387); and therefore local lesions affecting only one-half cannot be diagnosticated. It is probable that these structures have some connection with psychic processes, but we need further observations before we can say certainly in regard to this point.

In many cases of cerebellar disease we meet with disorders of co-ordination, but this is only the case when it affects directly or indirectly, the vermis, the middle lobe of the cerebellum. As soon as disease of the cerebellum, or, especially, morbid processes developing in the posterior fossa of the cranium, begin to exercise pressure on the vermis, will the symptoms of cerebellar ataxia make their appearance, and they will be lacking when this is not the case. Why, in these cases, the upper extremities usually are uninvolved, is not yet clear.

We await a fuller exposition of the above mentioned points, and an exhaustive description of the cerebellar disorders of co-ordination, with the points of distinction between these and similar spinal symptoms, in a forthcoming memoir by the author.